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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,954	12/31/2004	Giorgio Celeste Citterio	163-593	7346

7590 10/11/2006

EXAMINER
SINGH, ARTI R

ART UNIT	PAPER NUMBER
1771	

DATE MAILED: 10/11/2006

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/519,954	CITTERIO, GIORGIO CELESTE	
	Examiner	Art Unit	
	Ms. Arti Singh	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☐ Claim(s) _____ is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-27 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 12/31/04 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date 12/31/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-27 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-27 of copending Application No.

10/555966. Although the conflicting claims are not identical, they are not patentably distinct from each other because they appear to be obvious variants of one another.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 91/12136 issued to Blake in view of GB 2349798 issued to Plant or USPN 5854143 issued to Schuster.

5. WO 91/12136 issued to Blake discloses making a continuous ply of at least two resin-impregnated sheets that may be separated and made into a plethora of anti-penetration composites. Blake teaches the exact same fiber types, weaves; the modulus of the fibers, denier, count and strength (tenacity) of the fibers (pages 4-10). Blake also teaches the use of matrix resins, and from pages 15-20 states what they can chemically be. Almost all of Applicant's listed polymers are covered in these pages. Blake also teaches the process of application of the resin to the fibers/fabrics. Blake also teaches that these impregnated sheets made be used in plies (page 25+) depending on the end product, and that additional layers may be brought into the composite if required.

GB 2349798 issued to Plant teaches a protective member primarily used as an energy-absorbing composites. The energy absorbing material remains malleable until it is subjected

to an impact when its characteristics change rendering it temporarily rigid, the material returning to its normal malleable condition after said impact. The Examiner is equating this to the same as Applicant's visco-elastic liquid. The energy absorbing material is a strain rate sensitive material such as a dilatant, the preferred material being dimethyl siloxane hydroterminated polymers. The material may be applied to a fabric. The composite may also have additional layers of the same material or other materials like foams and spacer fabrics. Chemically they are the same.

The patent to Schuster et al. is directed to an antiballistic protective clothing comprising at least one layer of a flat structure containing an organic dilatancy agent (Abstract). The dilatant agent is saturated or charged into the flat structure (column 2, lines 31-32). The dilatancy imparting polymers are preferably applied in the form of dispersion to flat structures (column 3, lines 5-7).

Therefore a person having ordinary skill in the art at the time the invention was made would have found it obvious to employ the energy absorbing resin layer of Plant or the dilatant polymer of Schuster as the resin material in Blake's composite. One would have been motivated to do this, in order to make a ballistic vest that would not require as many fabric/resin layers, thereby making the Ballistic vest lighter in weight and more comfortable to wear.

With regard to the amount of visco-elastic liquid that is to be applied a skilled artisan would have found it obvious to have optimized the amount of visco-elastic liquid applied to the material of Plant or Blake, as optimizing the amount of visco-elastic liquid is considered a result effective variable. The greater the amount of visco-elastic liquid the less the penetration resistance, which would directly affects the strength and functionality of the composite. Therefore, it would have been obvious to one having ordinary skill in the art at

the time the invention was made to have used the visco-elastic liquid in the amount desired in Claim 5, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F. 2d 272, 205 USPQ 215 (CCPA 1980).

Given that the combination of Blake with either Schuster or Plant meet each and every chemical and structural requirement set forth in the claims, then it must meet the property limitations of viscosity and liquid temperature which depend from said requirements. In other words, it is reasonable to presume that the invention of Blake with either Schuster or Plant would inherently anticipate if not render obvious the physical properties of the present invention, since both inventions are comprised of an the same types of fibers, having the same weaves and denier with the same type of coatings with the same end use.

Furthermore, as no other structural or chemical features are claimed which may distinguish the present invention from that of Blake with either Schuster or Plant, the presently claimed physical properties of viscosity and liquid temperature are deemed to be inherent if not obvious to the invention of Kim et al. The burden is upon Applicant to prove otherwise. Note *In re Fitzgerald 205 USPQ 495*. Without a showing that evidences a difference between the prior art and the present invention, anticipation/OBVIOUSNESS is proper. In addition, the presently claimed properties of viscosity and liquid temperature would have been present once the composite of Blake with either Schuster or Plant were provided. Note *In re Best*, 195, USPQ at 433, footnote 4 (CCPA 1977).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ms. Arti Singh whose telephone number is 571-272-1483. The examiner can normally be reached on M-T 9-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ms. Arti Singh
Primary Examiner
Art Unit 1771

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